REMARKS

Reconsideration and allowance are respectfully requested in light of the above amendments and the following remarks.

Applicants acknowledge with appreciation the indication in the Office Action that claims 3-5 are allowed.

Claims 1, 2, 6, and 7 have been amended to better define the subject matter Applicants regard as their invention. Support for the features added to claims 1, 2, 6, and 7 is provided by the original claims, Fig. 3, and the specification on page 8, line 26, through page 9, line 15 and page 11, line 27, through page 12, line 21.

Claims 1, 2, 6, and 7 were rejected, under 35 USC §103(a), as being unpatentable over Komatsu (US 6,094,449) in view of Aoyama (US 6,282,229). To the extent these rejections are deemed applicable to amended claims 1, 2, 6, and 7, Applicants respectfully traverse.

Claim 1 now recites:

> *A communication terminal apparatus comprising:*
> *measurement means for measuring respective received levels of respective despread signals of a common control channel and a transmission directional controlled dedicated physical channel at respective reception timings;*
> *delay profile generation means for generating a delay profile based on measured results by said measurement means of the received level of the common control channel and a delay profile based on measured*

results by said measurement means of the transmission directional controlled dedicated physical channel;

calculation means for performing correlation calculation between the delay profile in the transmission directional controlled dedicated physical channel and the delay profile in the common control channel; and

determination means for selecting a path from a result of the correlation calculation to determine a reception timing of the path.

Komatsu and Aoyama fail to teach or suggest the features recited in claim 1 of: (1) performing correlation calculation between a delay profile of a transmission directional controlled dedicated physical channel and a delay profile of a common control channel and (2) selecting a path from a result of the correlation calculation to determine a reception timing of the path.

The Office Action proposes that Komatsu discloses correlators 9 that perform a correlation calculation between two received signals (Office Action page 2, third and fourth lines from bottom of page). However, Komatsu's correlators 9 neither correlate two received signals nor two delay profiles, as now recited in claim 1. Instead, each of Komatsu's correlators 9 correlates a single received signal with a spreading code of each symbol from a set of prospectively received symbols to identify the most likely received symbol. For each correlation calculation, correlators 9 perform the correlation using a

reception timing signal provided by demodulation path selection unit 8. In short, Komatsu's correlators 9 do not correlate any delay profiles, but instead correlate a received signal with a plurality of known symbols spread by a known spreading code. After the correlation calculations between the received symbol and each symbol in the set of prospectively received symbols are performed, the most likely received symbol can be identified from the greatest correlation value. Komatsu discloses these features in the following way.

Komatsu discloses that first and second correlators 4 and 9 each correlate an input signal with a spread signal to obtain correlation values used for demodulating a received signal (Komatsu col. 5, lines 59-61, and col. 6, lines 16-19). Since correlators 4 and 9 perform the same function and are identified by the same nomenclature, their structures and operations may reasonably be assumed to be similar. Komatsu discloses that correlator 4 multiplies its input signal by one symbol of the spreading code every chip and this multiplication operation is repeated at a rate determined from the product of the spreading ratio and the number of potentially received symbols in the search set (col. 9, lines 27-35, and col. 6, lines 33-58). Correlator 9 similarly multiplies a received signal by one symbol of the spreading code every chip at a rate determined from the

product of the spreading ratio and the number of potentially received symbols in the search set. Correlator 9 and detector 10 cooperate to identify the symbol from the set of prospectively received symbols that was most likely received by a corresponding antenna (col. 8, lines 19-20, and col. 10, lines 9-11). As a result, correlator 9 and detector 10 effectively despread and demodulate the reception signal received from a corresponding antenna, using a reception timing provided by demodulation path selection unit 8 (col. 7, lines 51-59, col 6., lines 15-18, and col. 10, lines 5-8).

In summary, Komatsu's demodulation path selection unit 8 only provides a timing signal for performing a correlation calculation, it does not provide a signal to be correlated with another signal. Correlator 9 correlates a received symbol, which is spread with a known spreading code, with each symbol in a set of prospectively received symbols that are similarly spread by the known spreading code. Thereafter, the symbol most likely received by the antenna is identified as the one corresponding to the symbol producing the greatest correlation value with the received symbol.

Accordingly, Komatsu does not disclose correlating two delay profiles, as recited in claim 1.

With regard to the claimed feature of selecting a path from a result of the correlation calculation to determine a reception timing of the path, the Office Action proposes that Komatsu discloses a rake/SD unit 11 that provides this feature (Office Action page 2, first two lines). The Office Action proposes that Komatsu discloses this feature in lines 19-24 of the Abstract.

However, rake/SD unit 11 does not determine a reception timing of a path, as proposed in the Office Action, and Komatsu's Abstract does not support an interpretation to the contrary. Komatsu's Abstract states that rake/SD unit 11 identifies a composite signal to obtain a judgment value (Komatsu Abstract, lines 24-25) Additionally, Komatsu's Abstract states that demodulation path selection unit 8 selects the reception timing (Abstract, lines 14-20, and see col. 6, lines 13-16).

And although demodulation path selection unit 8 selects the reception timing, correlators 9 are not the source of a correlation calculation for selecting the reception timing, as proposed in the Office Action. Since demodulation path selection unit 8 does not receive correlation calculations from correlators 9, it cannot determine the reception timing from such correlation calculations. Therefore, neither Komatsu's rake/SD unit 11 nor demodulation path selection unit 8 determine a path reception

timing from the correlation calculations provided by correlators 9.

Moreover, since none of Komatsu's correlators 4 and 9 correlate two delay profiles, as recited in claim 1, Komatsu does not suggest anything similar to selecting a reception timing of a path from a correlation calculation between two delay profiles.

Aoyama is cited in the Office Action only for disclosing delay circuits 21-2N for generating delay profiles (Office Action page 3, lines 3-4). However, Aoyama does not disclose the proposed feature.

Aoyama discloses in Fig. 1 that a delay profile combining means 122 combines the delay profiles produced by a plurality of parallel receiving units 111 to 11K (Aoyama col. 2, line 65, through col. 3, line 1). Each receiving unit 111 to 11K outputs its respectively produced delay profile from averaging means 8 (col. 3., lines 24-28). Therefore, Aoyama's disclosure makes clear that delay circuits 21 to 2N do not generate delay profiles, rather it is the receiving units 111 to 11K that produce the delay profiles.

The Office Action further proposes Aoyama's Abstract suggests combining Aoyama's delay circuits with Komatsu's structure so as to provide a delay profile generation means for generating respective delay profiles based on respective received

signals for obtaining the timing of the delay profile (Office Action page 3, lines 4-7). Applicants respectfully submit that: (1) Aoyama does not provide a teaching of obtaining the timing of respective delay profiles and (2) the proposed desire to obtain the timing of respective delay profiles would not motivate one skilled in the art to modify Komatsu's structure to include a delay profile generation means.

Aoyama does not disclose obtaining the timing of respective delay profiles, as proposed in the Office Action. Instead, Aoyama discloses in Fig. 1 that delay profile combining means 122 combines the delay profiles produced by receiving units 111 to 11K to produce a combined delay profile (Aoyama Abstract, lines 3-5, and col. 3, lines 29-31). Thereafter, a peak detector means 123 detects N peaks from the combined delay profile so as to supply receiving units 111 to 11K with synch chip timings that correspond to the N peaks (Abstract, lines 5-7, and col. 3, lines 32-35). Delay circuits 21 to 2N delay PN sequences from a PN sequence generator 6 on the basis of the synch chip timings provided by peak detector means 123 (col. 3, lines 37-39).

By contrast to proposed teaching of obtaining the timing of respective delay profiles, Aoyama actually teaches detecting N peaks of a combined delay profile for use as the synch chip timing. Aoyama does not disclose obtaining the timing of a

single delay profile. This difference is readily visualized by reference to Fig. 1.

Assuming, *arguendo*, that Aoyama did teach obtaining the timing of respective delay profiles, as proposed in the Office Action, such teaching provides no apparent motivation to modify Komatsu's structure to include a delay profile generation means. The motivation to combine is lacking because the proposed teaching - the desire to obtain the timing of respective delay profiles - provides no suggestion as to how these individual delay profile timings would be used by Komatsu's structure or how their use would improve the functionality of the structure.

Moreover, since Aoyama actually teaches obtaining a timing signal from a combined delay profile that includes a plurality of delay profiles, the motivation to combine is even more nebulous. Assuming, *arguendo*, that a skilled artisan could identify a teaching to make use of individual delay profile timings in Komatsu's structure, as proposed in the Office Action, such teaching provides no corresponding teaching as to how the timing of the combined delay profile could be used by Komatsu's structure.

In accordance with the above discussion, Applicants submit that the combined teachings of Komatsu and Aoyama do not suggest

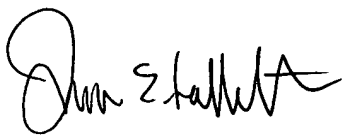
the subject matter defined by claim 1. Therefore, allowance of claim 1 and all claims dependent therefrom is warranted.

Claim 6 recites the features distinguishing apparatus claim 1 from the applied references, though with respect to a method claim. Thus, claim 6 is allowable over Komatsu and Aoyama for similar reasons that claim 1 distinguishes thereover. Therefore, allowance of claim 6 and all claims dependent therefrom is warranted.

In view of the above, it is submitted that this application is in condition for allowance and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,



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